Insight // Research Driven Ideas

-Ambient pictures speak a 10,000 words --> minimize verbiage/data clutter and make intuitive **reads** lead to goals and interaction. *ref. card et al. and NYT study*

-The resident's identity drives the storytelling motif, is inscribed and not contrived. This is the first indicated by defining constraints to user's setup input. *ref. watts on and types of quantitative display*

-Quantitative and qualitative thinking is built into us, use this to draw action from visuals rather than literals *ref. card et al.*

-Modes of interaction need to be closely enabled/engages with, in-time, so monitor/control also needs to be as "same" screen as possible. *ref. Heer et al.*

-Research in sustainable behavior changing technology indicates importance of ambiance as instigator in visualizing energy and allowing the user to engage with its active allocation. *ref. Paolos et al.*

-Use additive properties of color for app, since we are dealing literally with light. *ref. Paolos*

-Need to find a common measure/dimension for energy to be on the same scales as broken down components of the like: water, HVAC, room energy levels, lights, appliances. *ref. don't misrepresent data* (<-- need lookup)

-Need to maximise notion of app. growing with resident--match mental model of growing/living with the house and the app that represents its complexity.

-Explanation structure : minimal summary -> distilled visual -> detail oriented visual encapsulation -> break apart complex detail with description. (i.e. Rubiks Cube : game puzzle with 6 sides -> a cube or smaller cubes -> entire cube colored and rotating in quintillion -> break apart solution and finite steps)

-**Drill-down** used to show granularity/makeup to distill and make energy appear in pieces; also useful to stay on "same" screen but change perspective in view. Method -> Brushing and Linking

-Time spent exploring/drilling down makes more complex the data revealed and correlates with interest in long term and short term spurts of attention. (i.e. the case of overlaying days of the monthly billing cycle, opacities, time shifts, and room level aggregation)

-use "data portraiture" as an abstract method to draw in the user to the real-time yet seemingly banal data in order to interest them on the interactions possible with energy and glean the nuances of energy usage patterns.